

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte BYUNG KEUN LIM  
and YOUNG SIK YOUN

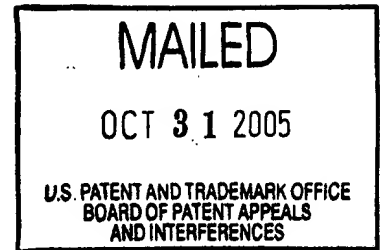
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Appeal No. 2005-1857  
Application No. 09/475,186

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ON BRIEF

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Before DIXON, GROSS, and SAADAT, Administrative Patent Judges.  
SAADAT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the Examiner's final rejection of claims 1-20.

We reverse.

BACKGROUND

Appellants' invention relates generally to a communication system for controlling a packet data service in a mobile communication network. In particular, the invention relates to

controlling the transfer of medium access control (MAC) layer state information and radio resource control (RRC) information of an active terminal when the active terminal moves from a first radio network controller (RNC) to a second RNC.

An understanding of the invention can be derived from a reading of exemplary independent Claim 1, which is reproduced as follows:

1. A system for controlling a packet data service in a mobile communication network, comprising:

a plurality of radio network controllers, wherein each of said radio network controllers assigns a radio channel to a packet data service active terminal and controls a data service path for said active terminal; and

a location management unit that manages service state information, location information and connection information of said active terminal;

wherein, when said active terminal moves from a first one of said radio network controllers to a second one of said radio network controllers in a suspended state or a dormant state, medium access control layer state information and radio resource control information of said active terminal are maintained between said first and second radio network controllers under control of said location management unit.

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The Examiner relies on the following prior art references:

Wright et al. (Wright)	6,240,083	May 29, 2001
Wallentin et al. (Wallentin)	6,292,667	Sep. 18, 2001

Claims 1-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Wallentin in view of Wright.<sup>1</sup>

Rather than reiterate the opposing arguments, reference is made to Appellants' brief (filed June 28, 2004) and reply brief (filed December 1, 2004) and the Examiner's answer (mailed October 1, 2004) for their respective positions. Only those arguments actually made by Appellants in the briefs have been considered in this decision. Arguments which Appellants could have made but chose not to make have not been considered (37 CFR § 41.37(c)(1)(vii)).

#### OPINION

Regarding claim 1, Appellants initially argue (brief, page 7) that Wallentin's inter-RNC transport link (32) is not a main body of transportation and is thus not a location management

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<sup>1</sup> The Examiner has withdrawn the rejection of claims 17 and 18 under the first paragraph of 35 U.S.C. § 112 in the answer.

unit. We do not find this persuasive because Wallentin teaches (Figure 1; column 6, lines 55-67) that transport link 32 handles handovers (i.e. the transfer of active terminal information between a first and second RNC) and that the link 32 can go through a core network, which is a location management unit.

Appellants further argue (brief, page 7) that Wallentin does not teach forward communication with a mobile station during an idle state when the mobile station moves from one area to another in an idle state, but merely receives a location update or comparable message to a home location register (and associated visitor location register) that provides for location registration. We do not agree with Appellants' position for two reasons. First, the language regarding "forward communication" is not recited in claim 1. Second, the Examiner has pointed to passages in Wallentin (column 12, lines 37-43 and column 4, lines 48-52) that do teach forward communication via paging while the mobile station (i.e. active terminal) is idle.

In considering the limitation of maintaining medium access control (MAC) layer state information and radio resource control (RRC) information between first and second RNCs, the Examiner states (answer, page 4) that Wallentin does not teach maintaining

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MAC layer state information and RRC information between first and second RNCs. The Examiner later states (answer, page 12) that Wallentin "alludes to such concepts of MAC (Medium Access Control) layer and radio resource control information (though does not explicitly state these terms)" and points to various passages within Wallentin (column 2, lines 38-47; column 4, lines 1-5; column 4, lines 24-27; column 4, lines 53-58; and column 12, lines 42-52) for support. However, the Examiner (answer, page 4) further relies on Wright (column 6, lines 34-50; column 28, lines 5-8; and column 31, lines 25-65) to buttress the teaching of MAC layer state information and RRC information. Additionally, the Examiner (answer, page 15) points to other passages in Wright (column 4, lines 45-56; column 6, lines 51-67; and column 6, lines 25-33) as indications of MAC layer functions.

Appellants argue (brief, page 7) that Wallentin does not teach MAC layer state information and RRC information of a terminal or a point-to-point protocol (PPP) connection between a new RNC and an active terminal, but rather teaches providing a location registration (column 2, lines 1-16). Appellants further

argue (brief, page 11) that Wright does not discuss operations occurring during an idle state or MAC operations and that Wright discusses a subscriber MAC, which is not part of a core network in Wallentin.

Although the MAC layer state information and RRC functions are considered in the references, we agree with Appellants' position that Wallentin and Wright do not teach nor suggest maintaining MAC layer state information and radio resource control (RRC) information between first and second RNCs. While Wallentin (column 1, lines 40-60 and column 6, lines 55-67) teaches handoff between a first and second RNC, there is nothing in the reference to teach MAC structure or performing the handoff when the active terminal is in a particular MAC state. With regards to Wright, although various MAC states are disclosed, there is no specific teaching of maintaining information between first and second RNCs while the subscriber (active terminal) is in a suspended or dormant state. The fact that MAC layer state information may be present is not sufficient to meet the claim limitation.

Thus, the Examiner has failed to provide a prima facie case of obviousness since the teaching related to maintaining MAC layer state information and RRC information when an active terminal in a suspended or dormant state moves from a first RNC to a second RNC is absent in the applied prior art. We note that claim 8 includes limitations similar to those in claim 1 related to maintaining the MAC layer state information between the old and the new radio network controllers, which are absent in the prior art as discussed above. Accordingly, the 35 U.S.C. § 103 rejection of independent claims 1 and 8 as well as claims 2-7, 9 and 16-20, dependent thereon, is not sustained.

Turning next to claim 10, we note that Appellants' primary argument (brief, page 13) is that Wallentin in view of Wright does not teach or suggest handoff operations in a suspended or dormant state or means to transmit MAC state information and RRC information of the active terminal. As stated above with respect to claim 1, we agree with Appellants' position that Wallentin and Wright provide no teaching or suggestion for maintaining MAC state layer information and RRC information when an active

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terminal in a suspended or dormant state moves between a first RNC and a second RNC.

As argued by Appellants (reply brief, page 5), the "moveover" in Wallentin applies to mobile station processing while connected to the caller in the core network. In fact, although Wallentin teaches handoff operations between first and second RNCs (column 1, lines 40-60 and column 6, lines 55-67), there is no teaching or suggestion to perform the handoff operations in the required dormant or active state as claimed and Wright's teachings on subscriber MAC layers do not remedy this deficiency. Accordingly, the 35 U.S.C. § 103 rejection of claim 10 and claims 11-15, dependent thereon, cannot be sustained.

#### CONCLUSION

In view of the foregoing, the decision of the Examiner rejecting claims 1-20 under 35 U.S.C. § 103(a) is reversed.



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REVERSED

Joseph L. Boyer

JOSEPH L. DIXON  
Administrative Patent Judge

Anita Pellman Gross

ANITA PELLMAN GROSS  
Administrative Patent Judge

BOARD OF PATENT  
APPEALS  
AND  
INTERFERENCES

Mahshid D. Dadat

MAHSHID D. SAADAT  
Administrative Patent Judge

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